ABSTRACT

The DCT converter 103 extracts block data 102 of a 8 × 8 pixel size from the original image 101 and then subjects it to DCT conversion. The quantizer 104 quantizes the DCT coefficient. The movement decision unit 106 obtains the difference between the number V(t) of DCT coefficients obtained by the DCT converter 103 and the number V(t-1) of DCT coefficients of the previous frame previously held. The movement decision unit 106 decides the movement as a large value if the difference exceeds a certain threshold value and decides the movement as a small value if the difference is less than the threshold value. The electronic watermark data inserter 105 extracts electronic watermark data W(j) which matches the location where 8 × 8 block data is extracted from the electronic watermark data table 109, the picture type and the movement and then inserts it into the data after quantization output from the quantizer 104.